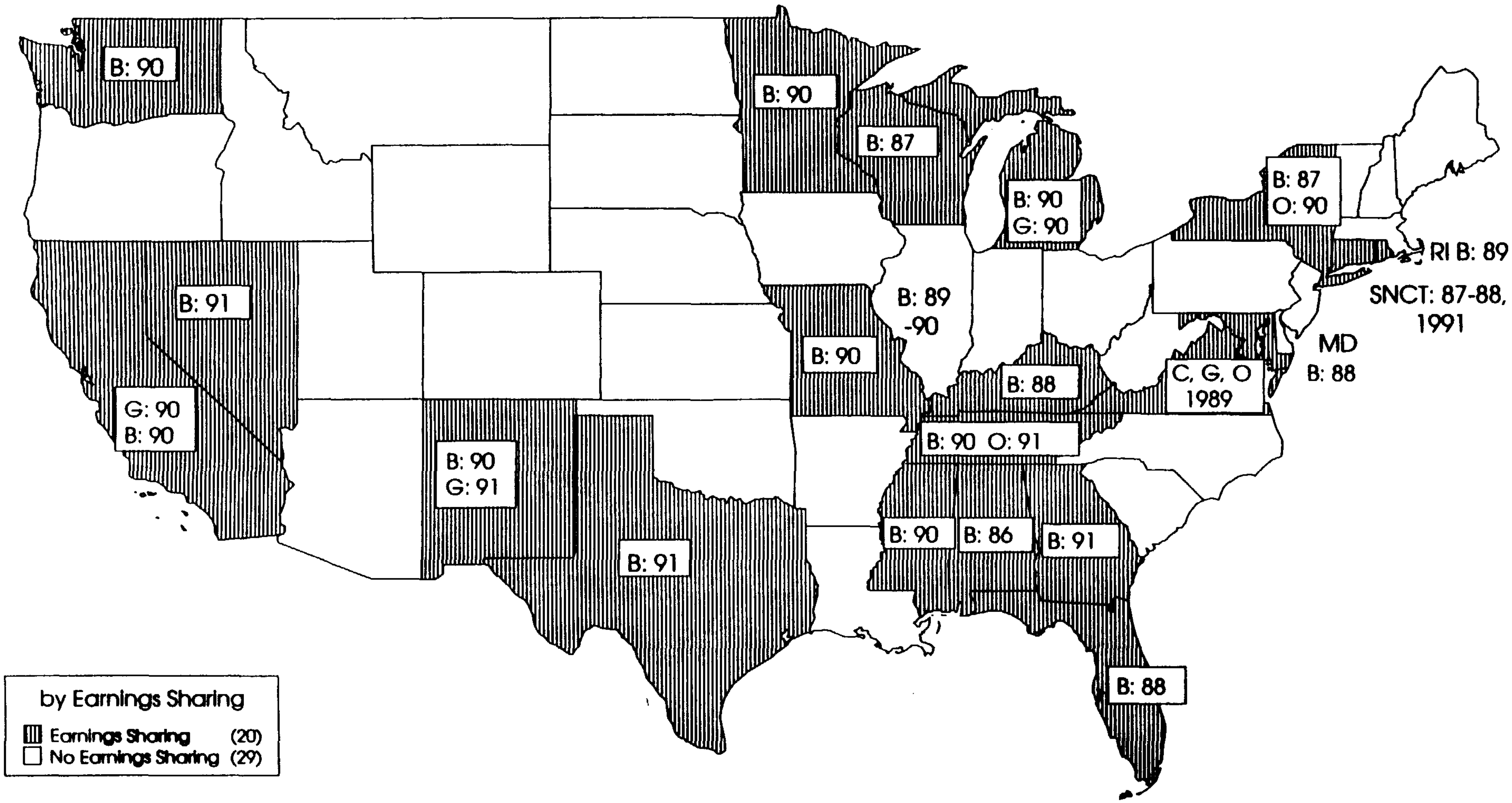
FIGURE 3: FIRMS SUBJECT TO EARNINGS SHARING AS OF 1991

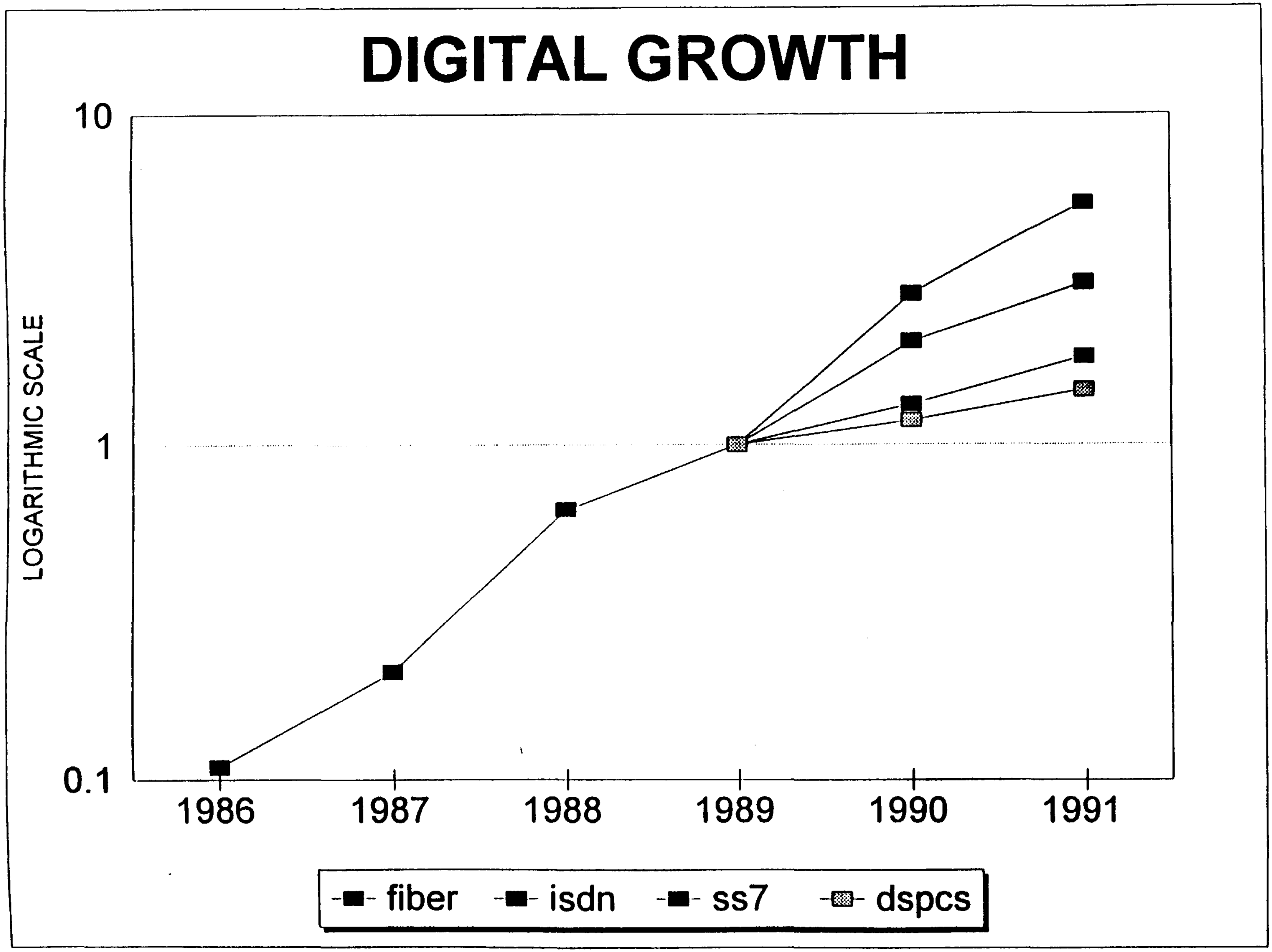
Firms subject to Earnings Sharing as of 1991

(year of adpption)



B: Bell company
G: GTE company
O: Other - NY: Rochester Tel., TN: United, VA: Central & Contel

FIGURE 4: DIGITAL GROWTH


DIGITAL GROWTH
10
1
0.1
LOGARITHMIC SCALE
1986
1987
1988
1989
1990
1991
fiber
isdn
ss7
dspcs

APPENDIX 1: States with Price Regulation Plans
1984 - 1993

STATES	TIME PERIOD
• California	1990-
• Delaware	1993-
• District of Columbia	1993-
• Florida	1988-
• Idaho	1989-
• Kansas	1990-1995
• Maine	1989-1992
• Michigan	1992-1995
• Minnesotta	1990-
• Missouri	1990-
• Nebraska	1986-
• Nevada	1991-
• New Jersey	1987-2000
• New Mexico	1990-1993
• New York	1990-1992
• North Dakota	1989-
• Oregon	1992-1996
• Rhode Island	1992-1995
• Texas	1991-
• Vermont	1989-1997
• West Virginia	1992-1994
• Wisconsin	1991-1993

Types of Price Regulation Plans:

Price-caps:

- Prices allowed to increase according to pre-set formula

Price-Freezes:

- Prices for non-competitive services are frozen or have downward flexibility for a specific duration period

California

California's plan became effective on January 1, 1990. Services are classified as either non-competitive, partially competitive or fully competitive. Non-competitive services such as basic local service are regulated by a price index. Partially competitive services are allowed downward pricing flexibility and have price caps and floors. The price index for both non-competitive and partially competitive services is set according to the GNP and adjusted by a productivity offset. Fully competitive services are allowed full pricing flexibility. The plan also includes an earnings sharing mechanism. (Source: Maine Report)

Delaware

In July 1993, the Delaware State Senate enacted SB 115 which provides for "price cap-type" regulation of LECs. Companies now have the option of electing price cap regulation return for infrastructure investment commitments. Services are classified as basic, discretionary or competitive. (Source: NARUC)

District of Columbia

On January 1993 the Public Service Commission adopted a an incentive regulation scheme for C&P including a three year freeze on basic service rates for residential (dial tone, touch tone, message units and service connections) customers and provided pricing flexibility for Centrex interconnections and granted C&P the right to make future requests for pricing flexibility under a screening process. (Source:NARUC)

Florida

Since 1988 Southern Bell has been under an earnings incentive plan which included a cap on residential rates (these were reduced by $1 and capped at that level). (Source: LECG survey)

Idaho

In 1988, the state enacted legislation which allows companies to deregulate all but basic local service. US West chose to deregulate non-basic local service and forfeited its certificate of public convenience. In 1989, the PUC approved a revenue sharing plan for US West. Revenue per access line is calculated for the base year, 1987. In subsequent "sharing" years, the same calculation is made. If the revenue per line exceeds the base year amount, a portion of the surplus is attributed to regulated services. Similarly, if the revenue per line is less than the base year amount, a portion of the deficit is attributed to regulated services. The remaining share of the deficit or surplus is attributed to deregulated services. US West and customers share in the surplus or deficit. The sharing plan is not affected by changes in expenses except for tax and FCC access charges. (Source: Maine Report)

Kansas

The TeleKansas plan was approved on Feb. 2, 1990. The plan freezes basic local residential and business rates until 1995. Certain discretionary services have pricing flexibility. The plan does not limit Southwestern Bell's earnings or require earnings sharing. (Sources: NARUC, Illinois Bell Analysis, Harris Indiana Bell Testimony)

Maine

Between 1989 and 1992, New England Telephone agreed to decrease toll rates, make certain infrastructure investments and not file for a rate increase in exchange for greater regulatory flexibility from the PUC. The PUC agreed not to request a decrease in rates. This arrangement amounted to a form of social contract. (Sources: Maine Report, Illinois Bell Analysis)

Michigan

On January 1, 1992, Michigan passed a second generation incentive regulation plan. The plan freezes for two years monthly service rates for all but very small carriers. Residential rates are flat-rated up to 400 calls. Intrastate access rates are capped at interstate rates for identical offerings. Intrastate toll rates are capped at 12/31/91 levels but can be reduced. After the two year period, Bell can file for a rate increase. An increase less than the inflation rate (-1%) will involve little review. (Sources: Maine Report, Harris Indiana Bell Testimony)

Minnesota

Since 1990 USWest operates under an incentive scheme plan that freezes regulated rates, except for income-neutral fillings (Source: LECG survey)

Missouri

From 1990 to 1993 Bell South's earning sharing scheme included a freeze on basic local rates. (Source: LECG survey)

Nebraska

LB 835, enacted in 1986, deregulated all but basic local service. Local service rate increases less than 10% are enacted automatically, unless a certain percentage of customers object. (Sources: Maine Report, Illinois Bell Analysis)

Nevada

Since 1991 Nevada Bell operates under an incentive scheme that freezes basic services for 5 years. (Source: LECG survey)

New Jersey

New Jersey has had a Rate Stability Plan with no limit on earnings since July 1, 1987. Services are classified as competitive or non-competitive. In 1987, New Jersey Bell capped all rates for at least three years. Certain events such as a change in the CPI of at least 4.5% over a twelve month period will cause a rate review prior to the end of the three year period. On January 17, 1992, legislation was passed allowing the deregulation of competitive services and the introduction of alternatives to ROR regulation, including the possibility of price regulation. (Sources: NARUC, Maine Report, Illinois Bell Analysis, Harris Ohio Bell Interrogatory)

New Mexico

A three-year incentive regulation plan was implemented for US West on January 18, 1990. Touch-Tone and switched access services are classified as non-competitive and subject to price caps. All other services are classified as non-basic and regulated via rate banding. The plan also includes an earnings sharing mechanism. (Sources: Maine Report, NARUC)

Contel was subject to an incentive scheme with some pricing flexibility from 1991 to 1993. Local rates were frozen and other services regulated by rate-banding. (Source: State Telephone Regulation Report).

New York

In February 1990, a two year incentive regulation plan was implemented for Rochester Telephone. A base ROE was established in 1990 with adjustments made to reflect changes in the interest rate environment. Rates for Rochester's monopoly offerings are adjusted annually to reflect changes in inflation less a productivity adjustment. The plan also includes pricing flexibility for non-monopoly services, as well as an earnings sharing mechanism. (Maine Report)

North Dakota

A July 1, 1989 law classified services as "essential" or "non-essential." Prices for essential services are limited by an input cost index adjusted by a productivity offset. Prices for essential services can change by greater than the productivity-adjusted input cost index as long as the overall service price is less than the cap. Prices for non-essential services are detariffed. (Source: Maine Report)

Oregon

The PUC approved an incentive regulation plan for US West in November 1991. The five year plan classifies services as "essential" or "non-essential." Prices for essential services may change only on a revenue-neutral basis, effectively freezing these rates for the life of the plan. Non-essential services are clustered into product groups and price-listed. The weighted average price of each product group, which accounts for inflation less a productivity offset, can increase a maximum of 10% over the life of the plan. The 10% maximum may be increased to 15% if the company can demonstrate to the PUC that it lacks market power for a sufficient number of services. (Source: Maine Report)

Rhode Island

New England Telephone is operating under a May 1992 four year alternative regulation plan. Rates for basic local service are frozen for the first year of the plan. During the second year of the plan, rates may increase by 50% of a price cap index which measures changes in the inflation rate less a productivity offset. In the third year, rates may increase up to 75% of the price cap index. In the fourth year, rates may increase by an amount equal to the change in the index. Prices for all other services may increase by an amount equal to the change in the index. The plan does not include any earnings sharing plan or earnings limitations. (Source: Illinois Bell Analysis)

Texas

From 1991 to 1994 Southwestern Bell's basic local rates are capped. (Source: LECG survey)

Vermont

New England Telephone is operating under the Vermont Telecommunications Agreement (VTA), in effect since February 1989. The VTA removes New England Telephone from any earnings regulation and freezes local rates for a three year period. The company is also granted pricing and regulatory flexibility to offer new services in exchange for infrastructure investment commitments. (Sources: Harris Indiana Bell Testimony and Illinois Bell Analysis)

West Virginia

The PUC approved a second-generation incentive regulation plan for C&P Telephone. The plan retained the previous plan's classification of services as competitive or discretionary, non-competitive or intrastate access services, as well as a new classification for services subject to "workable competition." Prices for basic services are frozen for the length of the plan. The company is removed from any earnings regulation and commits to network modernization improvements. (Sources: Harris Indiana Bell Testimony and Illinois Bell Analysis)

Wisconsin

On June 1, 1991, Wisconsin Bell and the PSC implemented an alternative regulation plan. Prices for basic local rates are frozen for a three-year period unless unforeseen events occur such as high inflation or interest rates. There is no earnings sharing mechanism or earnings regulation. (Sources: Illinois Bell Analysis, Maine Report)

APPENDIX 2: States with Earnings Sharing Schemes

State/Co.	Period	Earnings/sharing plan and conditions
Alabama		
BellSouth	November 1986-Present	BellSouth keeps earnings <12.3%ROC. Earnings >12.3% shared with ratepayers up to 50% split. Earnings <11.65% BellSouth may seek rate increases between 50-100% of amount needed to return ROC to 11.925%. Degree of sharing with R/P above 12.3%ROC based on how well BellSouth meets service and cost efficiency standards.
California		
Pacific Telesis		
	January 1990-Present	LEC's share earnings 50/50 with R/P between 13-16.5%ROR, LEC's return 100% to R/P of earnings >16.5%. Speculative telecommunications services not included in earnings sharing calculations.
GTE	January 1990-Present	LEC's share earnings 50/50 with R/P between 13-16.5%ROR, LEC's return 100% to R/P of earnings >16.5%. For 1994-1996, GTE retains 100% earnings <15.5%ROR, and returns 100% of earnings >15.5%ROR. Speculative telecommunications services not included in earnings sharing calculations. GTE proposes to replace electromechanical switches and some electronic switches and associated analog interoffice facilities.
Colorado		
USWest	January 1993-Present	USWest retains 100% earnings <13.5%ROE, retains 35% between 13.5-14.5%, retains 50% between 14.5-15.5%, retains 65% between 15.5-16.5%, returns to R/P 100% >16.5%ROE. Plan includes service quality standards which must be met (not specified).
Connecticut		
SNET	June1987-December 1988	SNET kept all earnings up to 13%ROE, between 13-13.5% earnings shared between increased depreciation and net income, between 13.5-14.3% shared 50/50 w/ R/P, >14.3% returned 100% to R/P

		No special conditioning
SNET	July 1991-Present	SNET shares earnings 50/50 with R/P between 11.26-13.05%ROR, SNET returns 100% earnings >13.05%ROR. SNET must alter service schedule to provide installation and repair service through 8pm weekdays and 5pm Saturdays.

District of Columbia

Bell Atlantic	January 1993-Present	Bell Atlantic retains 100% earnings between 11.5-13.5%ROE, splits 50/50 with R/P >13.5%. Plan stipulates that directory advertising revenues and expenses must continue to be calculated in the company's earnings.

Florida

BellSouth	September 1988-December 1992	BellSouth splits earnings 60/40 in favor of R/P for >14%ROE, earnings >16% returned 100% to R/P. No special conditions
BellSouth	January 1993-Present	1993: Earnings 10.8%ROE; 1994: >12% split 60/40 in favor of R/P, >14% return 100% to R/P; 1995: >12.5% split 60/40 with R/P, >14.5% return 100% to R/P No special conditions

Georgia

BellSouth	January 1991-Present	BellSouth splits 50/50 with R/P earnings between 14-16%ROE, returns 100% earnings >16%ROE. BellSouth may recover 50% of earnings needed to return to 13%ROE if ROE falls into 10-12% range, 100% if below 10%ROE Prohibited from sharing over-earnings if any exchange fails the trouble Report standard of 5 reports per 100 access lines. BellSouth must also meet productivity and service quality standards.

Idaho

USWest	1989-Present	Revenue for sharing year in excess of benchmark year (1987) allocated between regulated and deregulated services. In first year of sharing (1989) 37% of over-earnings distributed to R/P. Beginning in 1991, sharing level increased to 41% for R/P.

Customer benefit in 1992-1994 allocated to infrastructure investment primarily in fiber overlay.

Illinois

Illinois Bell	November 1989-October 1990	Earnings 12.76-14%ROE shared 60/40 in favor of LEC, earnings 14-15% shared 30/70 in favor of LEC, earnings >15% returned 100% to R/P. No specific conditions attached

Kentucky

BellSouth	October 1988-September 1990	Earnings between 12-13.57%ROC split 50/50, earnings >13.57% split 25/75 in favor of R/P No specific conditions attached
BellSouth	April 1991-Present	Earnings between 11.61-13.11%ROE split 50/50, earnings >13.11%ROE split 25/75 in favor of R/P No specific conditions attached

Louisiana

BellSouth	February 1992-Present	Earnings >12.75%ROE Co. keeps 40% if agree to prospective rate adj, keeps 50% if agree to after-the-fact refund; earnings <10%ROE, increase rates to get 50% of amount needed to get to 11.2%ROE High end of ROE range (12.75%) return on investment in excess of 1991 construction budget and in excess of $160 million annually 1991-1993.

Maryland

Bell Atlantic	1988-1992	Earnings between 13.6-15.6%ROE split 50/50, earnings >15.6%ROE returned 100% to R/P. No specific conditions attached
Bell Atlantic	1993-Present	Earnings between 12.7-16.5%ROE share 50/50, >16.5% returned 100% to R/P No specific conditions attached

Michigan

Michigan Bell		
	April 1990-December 1991	Earnings between 13.25-14.25%ROE shared 25% Co., 25% R/P, 50% to construction; 14.25-17.25%ROE 50% Co., 25% R/P, 25% to construction; >17.25%ROE shared 25% Co. and 75% R/P Initial excess revenue of $14.5 million used to permanently fund relay system for hearing and speech-impaired and lifeline service.
GTE	April 1990-December 1991	Earnings > 14%ROE split 50/50 Sharing contingent upon meeting service-quality goals
Minnesota		
USWest	January 1990-Present	Earnings between 13.5-18.5%ROE split 50/50, >18.5% returned 100% to R/P USWest agreed to convert 89 remaining electromechanical offices to digital from 1991-1994 at estimated cost of $100 million.
Mississippi		
BellSouth	June 1990-Present	Earnings between 10.74-11.74%ROC retained by BellSouth, >11.74% split 50/50 with R/P No specific conditions attached
Missouri		
Southwestern Bell		
	January 1990-December 1992	Earnings between 14.1-14.5%ROE split 60/40 in favor of R/P, 14.5-17.25% split 50/50, >17.25 returned 100% to R/P $180 million in network modernization
Nevada		
Nevada Bell	May 1991-Present	Sharing above 13%ROE, (50/50 split 13-15%ROE, 60/40 split in favor of R/P for 15-18% range, 75/25 favor R/P >18%ROE, see Profit Matrix) Replace step-by-step office in Baker, Nevada with digital switch ($900,000).

New Jersey

Bell Atlantic	May 1993-Present	Earnings >13.7%ROE split 50/50 Commit to deploy fiber-based broad-band network by 2010.

New Mexico

USWest	January 1990-December 1992	Earnings >13.75%ROE split 55/45 favor of R/P, >20%ROE returned 100% to R/P.
		$19.6 million network investment to serve institutions of higher learning
Contel	1991-1993	Ratepayers get a sliding share of earnings above a 14.59% return on equity.

New York

Rochester Telephone

January 1990-December 1992	Earnings >14%ROE split 50/50 with R/P
	No specific conditions attached

New York Telephone

May 1987 - December 1990	Adjusted ROE set based on interest rate environment. Sharing structure: >AdjROE+50bp returned 100% to R/P, >AdjROE+50-100bp retained by Co., >AdjROE+100bp split 50/50
	No specific conditions attached

Oregon

USWest	January 1992-Present	Earnings sharing 50/50 based on actual vs. targeted revenue per access line with 4% productivity adjustment.
		Conversion of 4,100 multi-party lines to single party lines ($42 million).

Rhode Island

NYNEX	January 1989-December 1991	1989: Earnings between 13.25-14.25%ROE split 50/50, >14.25%ROE returned to R/P1990: Earnings between 13.25-14.75%ROE split 50/50, >14.75%ROE returned to R/P
		NYNEX invests $50 million annually through March 1991 in plant modernization

NYNEX	March 1992-Present	Earnings <12.25%ROE retained by Co.; 12.25-19.25%ROE split 50/50; >19.25%ROE returned 100% to R/P--maximum return after sharing = 15.75%
		By end of 1995 commits to: analog offices to digital, equip all central offices with SignallingSystem7, instal ISDN capacity in 12 central offices, install fiber optic cable exclusively in all feeder replacement and growth projects

South Carolina

BellSouth	January 1992-December1993	Earnings between 14-16.5%ROE split 50/50, >16.5% returned 100% to R/P
		Efficiency guidelines used to determine productivity during plan.
GTE	January 1992-December1993	Earnings between 14-16.5%ROE split 50/50, >16.5% returned 100% to R/P
		Efficiency guidelines used to determine productivity during plan.

Tennessee

BellSouth	July1990-Present	Earnings <10.65%ROI, rate increase of 40-60% of amount needed to get to 10.65%; 10.65-11.85%ROI retained; 11.85-15.85%ROI return 40-60% to R/P--at most earn 14.85%
		$157 million allocated to deferred revenue account for technology deployment. Service quality dictates levels of sharing
United	1991-Present	Earnings < 11.45%ROI retain; 11.45-15.45%ROI share 40-60% with R/P; 15.45%ROI returned 100% to R/P
		Use projected excess earnings of $12.6 million to accelerate deployment of digital central offices, SS7 features and ISDN and Broadband capability. Quality requirement part of sharing mechanism.

Texas

Southwestern Bell

	January1991-December1993	Earnings between 12.06-14.5%ROI split 50/50, >14.5%ROI returned 100% to R/P
		$329 million for network modernization, including replacement of 196 electromechanical switches

Virginia

United/Centel, GTE/Contel

	January 1989-Present	1989-1993: >14%ROE return 100% to R/P1994: >12.55%ROE return 100% to R/P Service Quality is monitored

Washington

USWest	February 1990-Present	Earnings between 13.2-13.7%ROE 80/20 favor R/P; 13.7-14.9%ROE 60/40 favor R/P; 14.9-16.1%ROE 50/50; >16.1%ROE 60/40 favor Co. Convert multi-party lines to single party lines at approximate cost of $45 million

Wisconsin

Wisconsin Bell

	August1987-July1989	Earnings between 14.-15.5%ROE split 50/50, >15.5%ROE returned 100% to R/P No specific conditions attached

Appendix 3: Alternative State Regulations
Results from Profit Sharing

State	LEC	Year	Actual Rate of Return	Rate that Triggers Sharing	Amount Shared
Alabama	BellSouth	1Q-1988	12.16%	12.30%	$0
		2Q-1988	12.09%	12.30%	$0
		3Q-1988	12.02%	12.30%	$0
		4Q-1988	12.68%	12.30%	$9,200,000
		1Q-1989	12.19%	12.30%	$0
		2Q-1989	12.57%	12.30%	$8,600,000
		3Q-1989	11.86%	12.30%	$0
		4Q-1989	11.85%	12.30%	$0
		1Q-1990	12.17%	12.30%	$0
		2Q-1990	12.17%	12.30%	$0
		3Q-1990	12.33%	12.30%	$4,600,000
		4Q-1990	11.68%	12.30%	$0
		1Q-1991	12.02%	12.30%	$0
		2Q-1991	12.05%	12.30%	$0
		3Q-1991	12.45%	12.30%	$11,500,000
		4Q-1991	12.33%	12.30%	$7,300,000
		1Q-1992	12.28%	12.30%	$0
		2Q-1992	12.28%	12.30%	$0
		3Q-1992	12.71%	12.30%	$8,400,000
		4Q-1992	11.78%	12.30%	$0
		1Q-1993	12.19%	12.30%	$0
		2Q-1993	12.11%	12.30%	$0
		3Q-1993	12.60%	12.30%	not available
		4Q-1993	12.94%	12.30%	not available
California					
GTE		1990	not avail.	13.00%	$7,561,000
		1991	not avail.	13.00%	$29,680,000
		1992	not avail.	13.00%	$32,515,000
		1993	not avail.	13.00%	$8,204,000
Pacific Telesis		1990	12.22%	13.00%	$0
		1991	11.31%	13.00%	$0
		1992	12.03%	13.00%	$0
		1993	not avail.	13.00%	will not share
Colorado	US West	1993	not avail.	13.50%	NA, close to $0
District of Columbia	Bell Atlantic	1993	6.74%	13.50%	$0

Florida	**BellSouth**	1988	13.69%	14.00%	$0
		1989	13.69%	14.00%	$0
		1990	13.86%	14.00%	$0
		1991	12.92%	14.00%	$0
		1992	12.36%	14.00%	$0
		1993	10.39%	10.80%	$0
Georgia	**BellSouth**	1991	11.86%	13.00%	$0
		1992	11.95%	13.00%	$0
Idaho	**USWest**	1989	not app.	not app.	$1,700,000
		1990	not app.	not app.	$2,400,000
		1991	not app.	not app.	$4,600,000
		1992	not app.	not app.	$5,700,000
		1993	not app.	not app.	not available
Kentucky	**BellSouth**	1989-I	11.52%	11.61%	$0
		1989-II	12.36%	11.61%	$2,100,000
		1990-I	12.48%	11.61%	$2,500,000
		1990-II	12.09%	11.61%	$5,100,000
		1991-I	12.44%	11.61%	$4,000,000
		1991-II	12.22%	11.61%	$6,100,000
		1992-I	12.62%	11.61%	$4,300,000
		1992-II	12.11%	11.61%	$4,200,000
		1993-I	11.49%	11.61%	$2,200,000
		1993-II	11.04%	11.61%	$0
Louisiana	**BellSouth**	1992-II	12.14%	11.70%	$13,800,000
		1993-I	11.80%	11.70%	$7,900,000
		1993-II	10.91%	11.70%	$0
Maryland	**Bell Atlantic**	1990	10.34%	n/a	$0
		1991	13.52%	n/a	$0
		1992	13.60%	n/a	$0
		1993	12.70%	12.70%	$0
Michigan					
Michigan Bell		1990/1991	na	na	$10,500,000
Minnesota	**USWest**	1990	not avail.	13.50%	$6,800,000
		1991	not avail.	13.50%	$8,900,000
		1992	not avail.	13.50%	$3,500,000
		1993	not avail.	13.50%	not avail - small
Mississippi	**BellSouth**	1990-II	11.73%	11.74%	$0
		1991-I	11.49%	11.74%	$0

		1991-II	12.13%	11.74%	$2,800,000
		1992-I	13.38%	11.74%	$11,900,000
		1992-II	12.43%	11.74%	$10,400,000
		1993-I	11.26%	11.74%	$0
		1993-II	10.75%	11.74%	$0
Missouri					
Southwestern Bell		1990	not available	14.10%	$22,800,000
		1991	not available	14.10%	$22,200,000
		1992	not available	14.10%	$0
Nevada Pacific Telesis		1991	11.45%	11.40%	$170,000
		1992	11.45%	11.40%	$411,000
		1993	not avail	11.40%	not avail
New Jersey	**Bell Atlantic**	1992	10.55%	13.70%	$0
		1993	9.73%	13.70%	$0
Oregon	**USWest**	1992	not app.	not app.	$10,100,000
		1993	not app.	not app.	not available expect to share
Rhode Island	**Nynex**	1992	14.64%	12.25%	$3,000,445
		1993	13.51%	12.25%	$406,551
Tennessee	**United**	1991	13.00%	11.45%	$776,700
		1992	13.38%	11.45%	$979,200
	BellSouth	1990	11.15%	11.85%	$0
		1991	10.53%	11.85%	$0
		1992	10.78%	11.85%	$0
		1993	11.17%	11.85%	$0
Texas					
Southwestern Bell		1991	not available	12.06%	$14,800,000
		1992	not available	12.06%	$1,200,000
Washington	**USWest**	1990	not avail.	13.20%	$21,700,000
		1991	not avail.	13.20%	$28,700,000
		1992	not avail.	13.20%	$33,300,000
		1993	not avail.	13.20%	NA expect to share

* Customers generally receive the the money from sharing in the form of a one time credit in the first month of the next period. For Alabama, there is a two quarter delay in the implementation of sharing.

APPENDIX 4: Competitive Services Summary

Arizona (1985)

Service specific price deregulation. Regulators can end price regulation for services that are discretionary and competitive.

California (1990)

Services separated into three categories:

1) Basic monopoly services,

2) services which have downward pricing flexibility, and

3) services which have maximum pricing flexibility (enhanced services, Yellow Page directory advertising services, inside wiring services).

Colorado (1987)

Services separated into three categories:

1) Regulated services

(basic local service, public coin phone service, new products essential to provision of basic service, Touch-Tone service, White Page directory listings, basic emergency service, local exchange listed telephone number service,

2) Emerging Competitive services

(toll services, private line, switched access, premium services, advanced features for customers with no more than five lines), and

3) Deregulated services

(Centrex-type services, operator services, special arrangements and advanced services offered to large customers).

Delaware (1993)

Pricing flexibility exists for

1) Competitive services
(answering service, channels (MCSPO), concentrator-identifying equipment, special connections), and

2) Discretionary services

(speed calling, remote call forwarding, private lines—which may be priced in a price range between 5% above incremental cost and 10% above existing rates).

District of Columbia (1993)

Four screening criteria adopted for pricing flexibility.

Idaho (1989)

Telcos may operate in deregulated environment for all services except basic local services (USWest is the only Telco fully operating under the current deregulation plan).

Illinois (1985)

Pricing flexibility of competitive services allowed.

Indiana (1989)

LECs can flexibly price some services such as customer specific offerings.

Iowa (1983)

1989 law allows deregulation of competitive services:

Centron/Centrex, inside wiring, coin telephone, mobile services, intrastate billing and collection services, recording function, riser cable, Caroline Digital service, Hi-Lo capacity intraexchange private line, Hi capacity interexchange private line, terminal equipment, paging service, Versanet Alarm Services equipment, speed calling, and interLATA interexchange services.

Maine (1990-1992)

Price flexibility plan applies to new and competitive services, with expedited approval.

Maryland (1988)

Flexible pricing for all new and determined to be competitive services,

(Bell Atlantic Centrex intercommunications services, Audiotex, WATS/800 services, billing and collection, speed calling, other custom calling services for multi-line customers,high capacity private lines, customer specific services). Rates for such services receive expedited approval.

Massachusetts (1986)

Streamline regulation applies to Centrex, custom calling and some new services.

Michigan (1992)

Toll rates and rates for other services substantially deregulated, PSC regulates only certain services, not entire companies.

Missouri (1987)

Law requires classification of telecom companies as noncompetitive, transitionally competitive, fully competitive (large Centrex deals).

Montana (1985)

Services found fully competitive are fully deregulated: (resale, private lines and inside wiring). Degree of regulation of other services left to PSC.

Nebraska (1986)

All telecom services are removed from regulation. PSC can roll back excessive local rate hikes, i.e. rate increases in excess of 10%.

Nevada (1992)

Pricing flexibility for competitive and discretionary services is allowed.

New Jersey (1987)

Services separated into two categories. Competitive services have price flexibility:

> Centrex, public data network, high capacity channel and special access, central office-local calling area network, yellow pages advertising, and billing and collection.

New Mexico (1990)

Price flexibility exists for non-competitive services: Touch-Tone and switched access services. All other services classified as non-basic services are regulated via rate banding.

New York (1990-1992)

Increased pricing flexibility for services other than those classified as monopoly services. For Rochester Telephone only.

North Dakota (1989)

Non-essential services are not regulated. Services classified as essential are: basic local and business services, special and switches access, directory assistance, 911, EAS, service connection charges, and Touch-Tone service.

Ohio (1993)

Large local exchange companies may rquest alternative regulatory treatment for competitive services. Under the rules, a service that meets the competitive criteria set forth in the statute may be detariffed.

Oklahoma (1987)

Detariffing applies only to services deemed competitive.

Oregon (1992)

Pricing of non-essential services based on price-caps. Essential services are: basic residential and business services, semi-public and public coin phone rates, Touch-Tone service, public access line, "hunting", direct inward dialing, conditioning 976 and toll blocking, intercept announcement and referral services, white and yellow pages listings, privacy listing, directory assistance, 911, and switched access.

South Carolina (1988)

Law permits flexible pricing or detariffing for some competitive services like custom calling and Touch-Tone service.

South Dakota (1988)

Services classified as: 1) fully-regulated, non-competitive services, 2) emerging competitive, subject to flexible regulation, and 3) totally competitive and deregulated services. New services presumed fully regulated unless competition is proven.

Tennessee (1990)

Flexible-pricing for competitive services.

Utah (1985)

Law gives PSC the authority to reduce or limit regulation of competitive services based on proven market factors and public interest benefits.

Vermont (1988-1992)

New services offered under rates, terms, and conditions of New England Telephone's choosing. New services defined as anything other than NET's service offerings listed in the 1988 Vermont Telecommunications Agreement.

Virginia (1989-1993)

Services classified as: 1) actually competitive, 2) potentially competitive, 3) discretionary, and 4) basic (monopoly). Potentially competitive services are allowed pricing flexibility; discretionary and basic service rate changes may only take place via an official rate case.

Washington (1985)

Legislature gave Commission the authority to grant price flexibility for competitive services.

West Virginia (1988)

Services are classified into three groups: 1) competitive or discretionary, 2) non-competitive, and 3) intrastate access services. Rates for competitive services automatically adjust within 14 business days.

Winsconsin (1986)

LECs can flexibly price some services, such as customer specific offerings.

Sources: NARUC Report June 1993; Maine (Feb. 1992) and Missouri (May 1991) PUC reports; State Telephone Regulation Reports: Feb. 13, 1992 and Jan. 30, 1992.

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PABLO T. SPILLER

University of California
Haas School of Business
350 Barrows Hall
Berkeley, CA 94720
Tel. (510) 642-1502
Fax (510) 642-2826

Law & Economics Consulting Group, Inc.
2000 Powell Street, Suite 600
Emeryville, CA 94608
Tel. (510) 653-9800
Fax (510) 653-9898

PERSONAL INFORMATION

Born: April 30, 1951
Montevideo, Uruguay.

EDUCATION

UNIVERSITY OF CHICAGO, 1976 - 1980.
Ph.D., Economics, 1980.
M.A., Economics, 1977.

HEBREW UNIVERSITY OF JERUSALEM, 1972 - 1976.
M.A. (cum laude), Economics, 1976.
B.A. (cum laude), Economics, 1974.

UNIVERSIDAD DE LA REPUBLICA, Economics and Business Administration, Montevideo, Uruguay, 1969 - 1972.

PRESENT EMPLOYMENT

UNIVERSITY OF CALIFORNIA, WALTER A. HAAS SCHOOL OF BUSINESS, Berkeley, 1993 - present.
Visiting Professor of Business and Public Policy

UNIVERSITY OF ILLINOIS, 1987 - present.
William B. McKinley Professor of Economics and Public Utilities

UNIVERSITY OF ILLINOIS, 1990 - present.
Professor of Government and Public Affairs, Institute of Government and Public Affairs.

INSTITUTE FOR POLICY REFORM, Washington, DC, 1992 - present.
Senior Research Fellow

LAW & ECONOMICS CONSULTING GROUP, INC., 1993 - present.
Principal

RESEARCH INTERESTS

Industrial Organization, Political Economy, Economics of
Regulation and Antitrust, Regulatory Issues in Developing Countries.

PROFESSIONAL ACTIVITIES

Co-Editor, *Journal of Economics and Management Strategy*, 1991 - present.

Associate Editor, *Journal of Industrial Economics*, 1993 - present.

Member, International Advisory Board, CERES, Uruguay.

Director, PRAIRIE, "Program for Research on American and International Regulatory Issues and Environment," Institute of Government and Public Affairs, University of Illinois, 1992 - present.

Founding Member, Electric Power Research Consortium, University of California, Berkeley, 1993-.

ACADEMIC AND PROFESSIONAL EXPERIENCE

Academic Director, World Bank Project on "Regulations, Institutions and Economic Efficiency," 1992 - 1993.

Visiting Professor of Business, Haas Graduate School of Business, University of California, Berkeley, 1991/1992.

Visiting Research Professor, Universitywide Energy Research Group, University of California, Berkeley, 1991/1992.

Olin Foundation Fellow, Law School, University of California, Berkeley, 1991/1992.

Ameritech Research Fellow, Institute of Government and Public Affairs, University of Illinois, 1988 - 1990.

Visiting Professor of Business Economics, Center for the Study of the Economy and the State, Graduate School of Business, University of Chicago, Fall 1989.

Associate Professor of Economics, Department of Economics, University of Illinois, 1987 - 1989.

Senior Research Fellow, Hoover Institution, Stanford University, 1984 - 1987.

Visiting Associate Professor of Economics, Department of Economics, Stanford University, 1986 - 1987.